

**REMARKS**

Applicants appreciate the consideration shown by the Office as evidenced by the Office Action mailed on 25 August 2003. In that Office Action, the Examiner withdrew claims 34-39 from consideration, objected to informalities in the specification and the claims, and rejected claims 1-33. In this Response, Applicants have amended the specification and claims 11, 12, and 24. Applicants respectfully request favorable reconsideration in light of the above amendments and the following remarks.

**1. Restriction requirement**

Applicants hereby affirm their election of claims 1-33 for prosecution on the merits.

**2. Informalities in the claims and specification**

Applicants appreciatively note the Examiner's pointing out certain typographical errors in paragraph 0026 of the specification and in claims 11, 12, and 24. Applicants have inserted spaces as required to correct these errors and submit that the application is now free of such errors to the best of Applicants' knowledge.

**3. Claim Rejections****A. Rigney in view of Bose**

Claims 1-6, 13-17, and 23-31 were rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,153,313 to Rigney et al. (Rigney) in view of US 2001/0012568 A1 to Bose et al. (Bose). Applicants respectfully traverse this rejection.

Applicants respectfully submit that the applied combination of references fails to create a *prima facie* case of obviousness. One of the basic criteria that must be met to establish a *prima facie* case of obviousness is that the combination of references "must teach or suggest all the claim limitations." MPEP §§ 2142, 2143.03. Here, the combination fails to teach all of the limitations recited by independent claim 1 of the present application. Rigney describes a nickel aluminide – based bond coat system. Rigney, Abstract. Rigney explains that the coating is deposited using a physical vapor deposition (PVD) process but, aside

from suggesting two exemplary PVD processes that may be suitable for depositing the coating, does not go into the details of the PVD processing. Id., col. 5, lines 21-31. In fact, ion plasma deposition is not mentioned at all in Rigney. Bose describes an MCrAlY bond coat system where it is "possible" that cathodic arc processes would be used to deposit such a coating. Bose, paragraph 0025. No details of suitable process parameters, such as, for example, the composition of a target used to deposit such a coating, are given in Bose. In sharp contrast to the combination of references used here, Applicants' independent claim 1 recites in part, " providing an ion plasma deposition target, said target comprising from about 2 atom percent to about 25 atom percent chromium, and the balance comprising aluminum." Applicants respectfully submit that neither of the applied references, alone or in combination, teaches, suggests, or discloses a target composition as recited in Applicant's claim 1, nor do they remotely suggest that such an alloy composition can or should be used to form any type of coating, and therefore the combination is lacking the necessary teaching or suggestion of all recited claim limitations.

For the reasons stated above, Applicants respectfully submit that claim 1 and its dependent claims 2-6, 13-17, and 23-31 are patentably distinct from the applied combination of references.

#### B. Other claim rejections

The Examiner relies on the combination of Rigney and Bose as above, further in combination with various other references, to develop purported rejections of the other pending claims in this application. However, all of claims 2-31 depend from claim 1, believed to be allowable for the reasons described above, and so Applicants respectfully submit that these claims are allowable, regardless of the prior art cited, because each depends from an allowable independent claim.

Claim 32 is an independent claim from which claim 33 depends. Claim 32 was rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,153,313 to Rigney et al. (Rigney) in view of US 2001/0012568 A1 to Bose et al. (Bose) and US 4,109,061 to Beale et al. (Beale). Applicants respectfully submit that this combination fails to establish a proper *prima facie* case of obviousness for the reasons described above. Moreover, the addition of


Beale does not overcome the previously noted deficiencies of the Bose-Rigney combination. Beale is applied by the Examiner for its discussion of the advantages of biasing the substrate, such as that discussed in column 4, lines 52-63. Beale is silent as to the use of targets of any composition, as are the other two references, and so the limitation, recited in present claim 32, of an ion plasma target of a particular composition is not taught, suggested or disclosed by the applied combination of references. As claim 33 depends from claim 32, Applicants respectfully submit that it, too, is allowable because it depends from an allowable dependent claim.

#### 4. Conclusion

In short, Applicants respectfully point out that while the applied references may be construed to describe a bondcoat that may possibly be applied by any of various deposition techniques, there is not even a remote suggestion of the use of an ion deposition target of the composition recited in the instant claims to deposit this or any other coating. No fair reading of these references would suggest to one of ordinary skill in the art to use a process as recited in claims 1 and 32 of the present application to produce a protective coating. Applicants respectfully request reconsideration of the pending claims.

In light of the remarks and amendments presented herein, Applicants believe that this serves as a complete response to the subject Office Action. If, however, any issues remain unresolved, the Examiner is invited to telephone the undersigned at the number provided below.

Respectfully submitted,



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